

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION

CLEAN ENERGY MANAGEMENT	)	
SOLUTIONS, LLC,	)	
	)	
Plaintiff,	)	
	)	Civil Action No. 2:18-cv-247
v.	)	
	)	<b>JURY TRIAL DEMANDED</b>
CRESTRON ELECTRONICS, INC.,	)	
	)	
Defendant.	)	
_____	)	

**COMPLAINT**

For its Complaint, Plaintiff Clean Energy Management Solutions, LLC ("Clean Energy"), by and through the undersigned counsel, alleges as follows:

**THE PARTIES**

1. Clean Energy is a Texas limited liability company with a place of business located at 1400 Preston Road, Suite 475, Plano, Texas 75093.
2. Defendant Crestron Electronics, Inc. a New Jersey company.
3. Upon information and belief, Defendant regularly conducts business at 7250 Dallas Parkway, Suite 600, Plano, Texas 75024.
4. Upon information and belief, given Defendant's e-mail address for contacting its Plano, Texas office is "PlanoHQ2@crestron.com," Defendant's Plano, Texas office is a headquarters of Defendant.
5. Upon information and belief, Defendant has registered with the Texas Secretary of State to conduct business in Texas.
6. By registering to conduct business in and having a physical location in Texas, Defendant has a permanent and continuous presence in Texas.

**JURISDICTION AND VENUE**

7. This action arises under the Patent Act, 35 U.S.C. § 1 *et seq.*

8. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338.

9. Upon information and belief, Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in this district.

10. Venue is proper in this district pursuant to § 1400(b).

**THE PATENT-IN-SUIT**

11. On October 11, 2011, U.S. Patent No. 8,035,479 (the "'479 patent"), entitled "Mesh Network Door Lock" was duly and lawfully issued by the U.S. Patent and Trademark Office. A true and correct copy of the '479 patent is attached hereto as Exhibit A.

12. The claims of the '479 patent provide an inventive concept and do not claim an abstract idea. The inventive concept of the '479 patent greatly enhances home or business automation and security. The use of a code from a mesh network key and a mesh network to provide access to a secured area upon authenticating the code is an improvement over the prior art in that it provides the effectiveness of the conventional mechanical door latch locks that had not previously been duplicated by the complicated, high power consuming or ineffective prior art electronic lock structures.

13. The claims of the '479 patent, moreover, do not merely recite the performance of a longstanding business practice on a computer; rather the claims describe a solution necessarily

rooted in electromechanical technology to solve a problem specifically arising in the realm of automated security. The patent specification, for example, explains how prior art electronic lock structures were not "pick-proof" low power lock configurations that were compatible with the internal locking mechanisms of universally used conventional key-operated door latch locks. The '479 patent overcame this difficulty, among others, by using an algorithm and an electromechanical device to lock or unlock a secured area based on sending a code from a mesh network key and wirelessly communicating the code over a mesh network, receiving the code at a mesh network lock controller and providing access to a secured area upon authenticating the code.

14. Clean Energy is the assignee and owner of the right, title and interest in and to the '479 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

**COUNT I – INFRINGEMENT OF U.S. PATENT NO. 8,035,479**

15. Clean Energy repeats and realleges the allegations of paragraphs 1 through 14 as if fully set forth herein.

16. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant has infringed and continues to infringe at least claim 15 of the '479 patent by making, using, importing, offering for sale, and/or selling, systems and methods that provide access to a secured area through use of a mesh network, including, but not limited to Pyng.

17. Upon information and belief, Defendant used the accused Pyng via its internal use and testing in the United States, directly infringing one or more claims of the '479 patent.

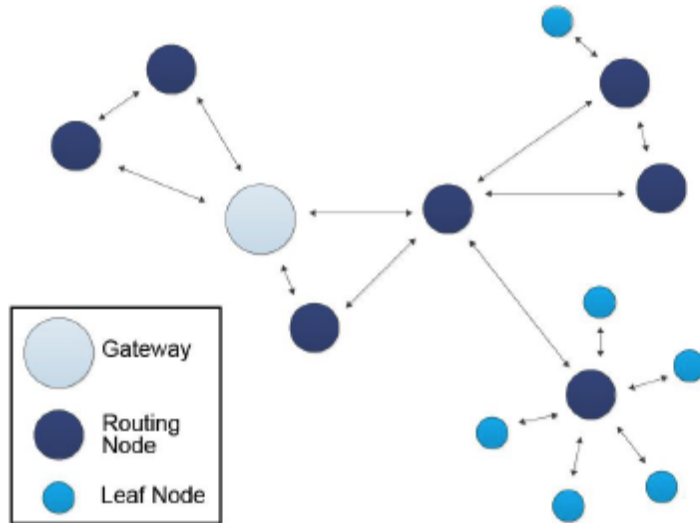
18. More specifically, Pyng is a home control system that integrates door locks and garage door openers using mesh network connectivity. *See* <https://www.crestron.com/en->

US/Products/Control-Hardware-Software/Hardware/Control-Systems/PYNG-HUB (last accessed June 8, 2018). Pyng sends a code to unlock a door and provide access to a secured area using a mesh network. *See* Crestron Pyng Control Hub ("Pyng Control Hub") at p. 1 ([https://www.crestron.com/getmedia/7ab678a2-60f2-46fb-8f7c-fea5c0c24bdc/ss\\_pyng-hub\\_1](https://www.crestron.com/getmedia/7ab678a2-60f2-46fb-8f7c-fea5c0c24bdc/ss_pyng-hub_1) (last accessed June 8, 2018)); The Beauty of Perfect Control ("Perfect Control") at p. 4 ([https://www.crestron.com/getmedia/7b16f50e-6b98-404d-80de-34f44a846ba4/pb\\_crestron\\_pyng\\_1](https://www.crestron.com/getmedia/7b16f50e-6b98-404d-80de-34f44a846ba4/pb_crestron_pyng_1) (last accessed June 8, 2018)). Pyng Hubs are full function devices that communicate with the end node, router node and an integrated coordinator node. *See* Pyng Control Hub at pp. 1, 3; Perfect Control at p. 5; Crestron-Pyng Setup & Home Control App ("Setup & Home Control App") at p. 1 (available at [https://www.crestron.com/getmedia/50a8d6e6-4e46-4db5-ae88-35666bae162d/ss\\_crestron-pyng\\_1](https://www.crestron.com/getmedia/50a8d6e6-4e46-4db5-ae88-35666bae162d/ss_crestron-pyng_1) (last accessed June 8, 2018)). The infiNET EX wireless network used by Pyng forwards data from node to node to a destination so that data (e.g., unlock or lock command) reaches the destination even if a node fails or is not within range.

## Mesh Networking

Mesh networking serves to extend range and provide backup communication paths. The range is extended by message hopping through routing devices to get to the intended recipient. Each hop can extend the range by another leg. The Mesh Networking example below has a hop depth of three from the gateway to the end devices. The maximum hop depth supported is six. If a node fails, the device automatically reroutes its path to the gateway through the closest routing node, not a leaf node. Leaf nodes are battery-powered devices and cannot act as routing nodes. All nonbattery devices can route. The meshing concepts apply to infiNET EX, Züm Net, and Züm Mesh.

*Mesh Networking Example*



Installation and Setup of Crestron RF Products ("Installation and Setup") at p. 5 (available at [https://www.crestron.com/getmedia/3b3588d1-9356-4d4b-a2df-](https://www.crestron.com/getmedia/3b3588d1-9356-4d4b-a2df-b3ac1c6fff14/mg_bp_installation_setup_crestron_rf_products_1)

[b3ac1c6fff14/mg\\_bp\\_installation\\_setup\\_crestron\\_rf\\_products\\_1](https://www.crestron.com/getmedia/3b3588d1-9356-4d4b-a2df-b3ac1c6fff14/mg_bp_installation_setup_crestron_rf_products_1) (last accessed June 8, 2018)).

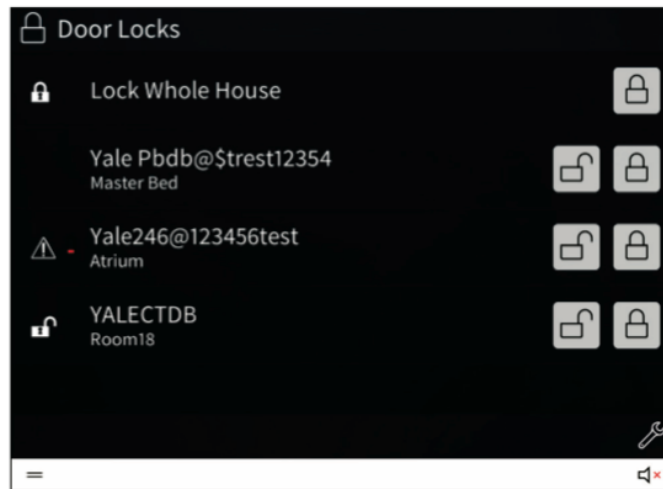
Pyng uses the coordinator node integrated in the full-function device to establish the network and define the main parameters for the mesh network. *Id.* at p. 9. The end node (e.g., control panel touch screen or buttons, keyfobs, smartphone, tablet, etc.) is a reduced function device which is capable of communicating with the mesh network and does not participate in the routing of the command to lock or unlock the door. *See* Setup & Home Control App at pp. 1-2; Perfect Control at p. 4. Pyng is compatible with several mesh network lock controllers. *See* <https://www.crestron.com/en-US/Products/Featured-Solutions/Crestron-Pyng> (last accessed June 8, 2018). The code for locking and unlocking is received at the door lock and enables the

locking or unlocking of the door. See <https://www.crestron.com/en-US/Products/Lighting-Environment/Locks/Door-Locks/CLK-YL-YRL210-CR-619> (last accessed June 8, 2018). Pyng will unlock the door upon authentication of the code.

### Locks

Select the **Locks** button (🔒) from the **Home** screen or select **Locks** from the **Pyng Devices** section of the user menu to display the **Door Locks** screen.

*Door Locks Screen*



Crestron Pyng Software at p. 106 (available at [https://www.crestron.com/getmedia/8e706364-1254-43db-80a9-1dc8da77df54/mg\\_pm\\_crestron\\_pyng\\_software](https://www.crestron.com/getmedia/8e706364-1254-43db-80a9-1dc8da77df54/mg_pm_crestron_pyng_software) (last accessed June 8, 2018)).

### infiNET EX®

Ultra-reliable infiNET EX wireless technology provides steadfast 2-way RF communications throughout a residential structure without the need for physical control wiring. Yale Wireless Door Locks work together with other infiNET EX devices like our Cameo® Wireless In-Wall Dimmers and Keypads, communicating with a Crestron® control system via the [CEN-RFGW-EX](#) infiNET EX Wireless Gateway<sup>[1]</sup>. Up to 100 infiNET EX devices may coexist on a single infiNET EX network.

Yale Wireless Lever Lock w/infiNET EX® and Pushbutton Keypad (available at [https://www.crestron.com/getmedia/52008eb4-7d4e-4e9e-a3c7-1d8596433515/ss\\_clk-yl-yrl210-cr\\_1](https://www.crestron.com/getmedia/52008eb4-7d4e-4e9e-a3c7-1d8596433515/ss_clk-yl-yrl210-cr_1) (last accessed June 8, 2018)).

19. Clean Energy is entitled to recover from Defendant the damages sustained by Clean Energy as a result of Defendant's infringement of the '479 patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**JURY DEMAND**

Clean Energy hereby demands a trial by jury on all issues so triable.

**PRAYER FOR RELIEF**

WHEREFORE, Clean Energy requests that this Court enter judgment against Defendant as follows:

- A. An adjudication that Defendant has infringed the '479 patent;
- B. An award of damages to be paid by Defendant adequate to compensate Clean Energy for Defendant's past infringement of the '479 patent and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Clean Energy's reasonable attorneys' fees; and
- D. An award to Clean Energy of such further relief at law or in equity as the Court deems just and proper.

Dated: June 8, 2018

/s/ Richard C. Weinblatt

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